

# The Ballarat Naturalist

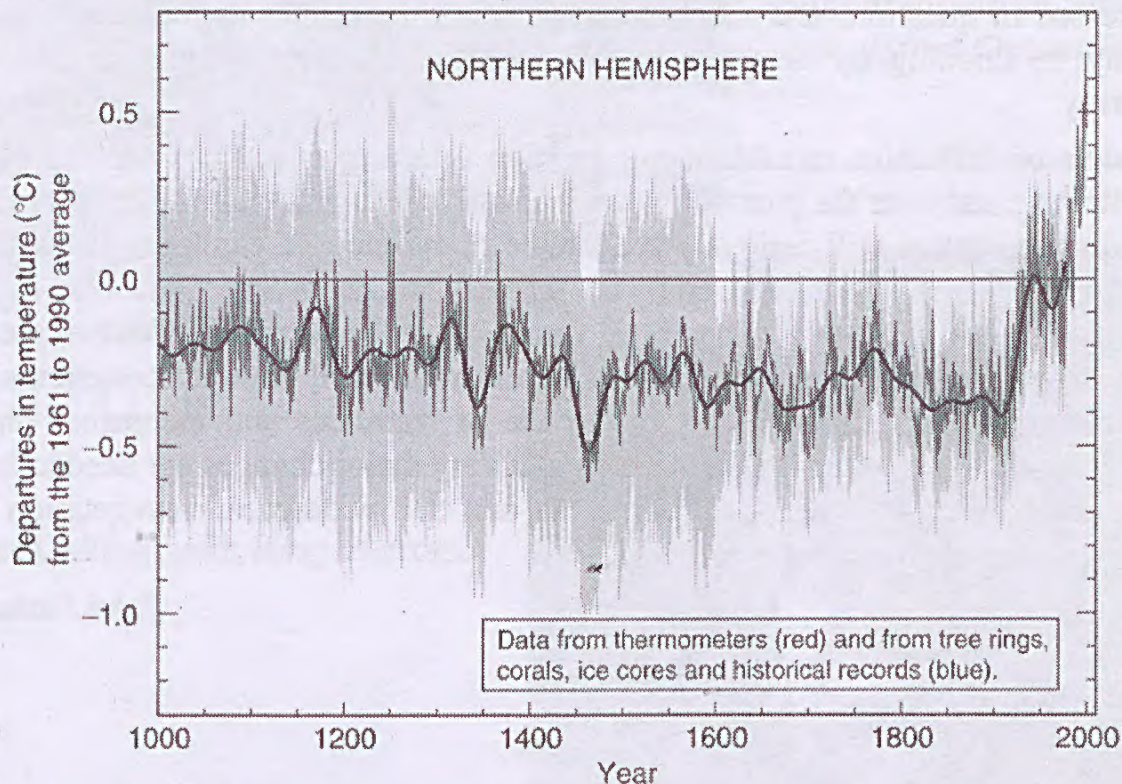
July 2010



## FROM BIRDS TO DIATOMS AND WETLAND CONDITION - TO PAST AND FUTURE CLIMATES

**PROFESSOR PETER GELL: PALEO-ENVIRONMENTALIST.**

As guest speaker at the June meeting palaeoecologist Peter Gell gave a fascinating (if sometimes scary) summary of results of research on long-term changes to wetlands - related to climate, and shorter term impacts of human land use. He also provided contextual graphs and other information on climate change that seem extremely relevant to southern Australia. Professor Gell is Director of the Centre for Environmental Management, University of Ballarat, and is involved in several national and international research programs. His earliest interests and research were on Birds of the Victorian Mallee, his Master's thesis was on Fire and



"The Hockey Stick" Graph. From the Intergovernmental Panel on Climate Change Third Assessment Report 2001 The Intergovernmental Panel on Climate Change.



Vegetation History in East Gippsland, and his PhD was on Developing a Diatom Calibration Set for Lake Salinity in Western Victoria.

Peter's palaeoecological research involves taking vertical core samples in lake or river beds, and examining the chemical, physical and biological features of each 2mm layer in the profile. Various tools like radio isotope dating, and indicators of European settlement such as pollen from *Pinus* sp. and fungal spores from sheep dung can help to date the various sediment layers. In the same layers, the composition of (fossil) diatom species provide accurate information on sediment conditions at that time - such as water turbidity, salinity, acidity, erosion rate and eutrofication. These techniques are used to build up a story of long and short-term change across Australia over time, and hence an understanding of relationships between climate, sea levels, dominant vegetation, European settlement and other historical events – across the continent.

Some alarming findings include the massive amounts of soil erosion that occurred across SE Australia within a few decades of introduction of sheep grazing, and the 50x increase in salinity in some Murray valley lakes following the Snowy River scheme and the start of irrigation. Peter outlined examples of 'monitoring back-in-time' at various familiar lakes and rivers, including Lake Colac and Tower Hill (where the volcano is 35000 years old), and he provided an assessment of conditions in the Coorong Lakes in South Australia. The Coorong was granted Ramsar Wetland Status in 1985 – but is now listed (embarrassingly) as a 'Degraded Ramsar Wetland'. The research shows that The Coorong was an estuarine system and was refreshed not by the Murray River, but mainly by sea water and its own freshwater catchment. The validity of the Ramsar listing is therefore in question, and the remedy to reducing further degradation may be partly in flooding by seawater, rather than in sourcing freshwater from the Murray.

Models of "effective rainfall" (precipitation minus evaporation) show a (15%) declining trend over the past 200 years in parts of Victoria, and the drying effects of climate change will seriously accentuate this trend. Research on 45 wetlands in the Murray Darling basin showed that all are degraded. Only one of 150 Australian wetlands studied has been found not to be degraded. Peter expressed very serious concerns about this massive destruction of natural ecosystems that continues in the face of inappropriate use of resources and increasing threats from the changing climate. He believes that very major changes are needed in the ways that we have to adapt in the future, and that widespread revegetation will have its own environmental consequences.

*John Petheram*



## PORT FAIRY CLUB CAMP

The seventeen BFNC members who attended the club camp, returned from Apollo Bay last Friday afternoon. Once again they were lucky to experience good weather (apart from very strong winds on Wednesday and Thursday nights). They visited the following places:

- ♦ Lower Aire River.
- ♦ Seals on rocks at Marengo.
- ♦ Barham River at Paradise – fungi, ferns, Satin Bowerbirds and Bassian Thrush.
- ♦ Shelley Beach.
- ♦ Kennet River – koalas, King Parrot and Crimson Rosella.
- ♦ Grey River Road – ferns.

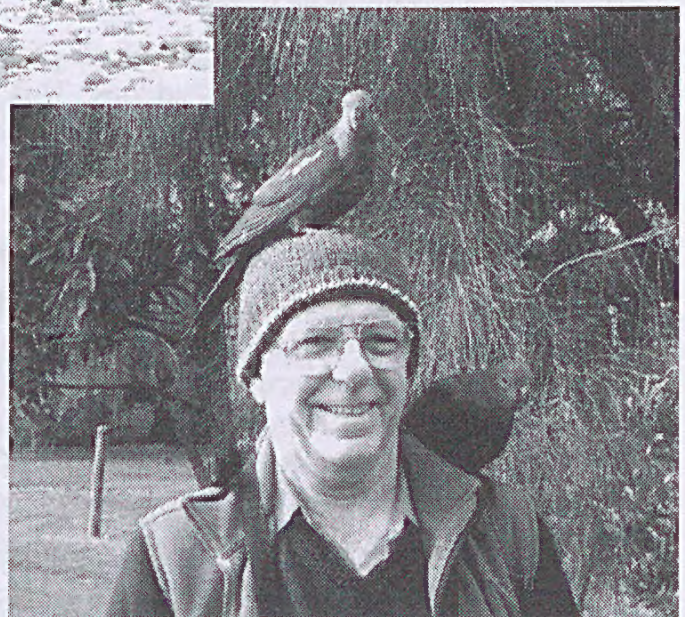
We look forward to a more detailed report in next month's newsletter.



Group at mouth of Smythe Creek, Great Ocean Road.

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Peter Dalman with King Parrots.



Photographs– John Gregurke



## CLARKESDALE BIRD SANCTUARY

*Helping today's birds survive tomorrow'* indicates BOCA's commitment to habitat protection, expansion and enhancement.

The late Gordon Clarke, a grazier and keen birdwatcher of Linton, became aware of a decline in his local woodland bird community during the 1950's. He also realised that removal of the invasive introduced gorse would reduce the protection needed for many of the declining woodland species. He started to replace the invasive gorse with a wide range of Australian plants in the expectation that they would provide more suitable habitat for the woodland birds.

This revegetation program kept Gordon and his disciples busy for many years. Gordon's enthusiasm was infectious and the project grew with the involvement of many partners, more land acquisitions, and the appointment of a resident ranger.

Today Clarkesdale Bird Sanctuary is managed by a Committee of Management appointed by BOCA and covers 535 hectares. BOCA and Trust for Nature each own part of the private land and the adjacent Crown Land has been designated as Flora and Fauna Reserve. Trust for Nature Conservation Covenants have been registered on the private land titles.

### A Brief History

Clarkesdale Bird Sanctuary derived its name from the parish of Clarkesdale named after Gordon's great grandfather who had settled at Piggoreet. Gordon purchased the '**Bird Paddock**' block of 31 hectares in 1957. He had always admired the views and the bird songs when droving sheep between his family properties, Piggoreet West and Linton Park. For many years it had been used as a holding paddock to and from the shearing shed at Linton Park. It had never been intensively grazed but gold mining had left many scars. Gordon first started planting in the spring of 1967 using many Australian species attractive to birds for food and shelter. The current ideology of using only indigenous species did not become fashionable for another 20 or 30 years.

In spring and summer the '**Bird Paddock**' once again resounds with birdsong. The resident Superb Fairy-wrens, Grey Shrike-thrushes, Eastern Yellow Robins, Jacky Winters and Eastern Shrike-tits are all calling. Their song is joined by the visiting Rufous Whistlers, White-winged Trillers, Pallid and Fan-tailed Cuckoos, Dusky Woodswallows, Satin Flycatchers, Blue-winged Parrots and Golden and Shining Bronze Cuckoos. The dawn chorus has to be heard to be believed.

In 1980 Gordon purchased a second block of 13 hectares on the south side of the Linton Piggoreet road opposite the Bird Paddock. This block was first farmed in 1910 and at one stage was an orchard with plums, pears, apples, almonds and cherries. A cottage on the site was used for many years as a meeting place for many devoted birdo's and volunteers. Termites have made the cottage uninhabitable and a new meeting place is about to be created within a substantial machinery shed built in the 1980's.

This second block was named '**Grantiella**' to acknowledge the Painted Honeyeater, *Grantiella picta*, an occasional visitor. There are now frequent sightings of Bassian Thrushes, White-browed Scrub Wrens, Bronze-winged Pigeons, Crimson Rosellas and Brown Goshawks in the remnant and planted Red stringy-barks, Messmates and Scent-barks and the dense understory thickets.

The '**Bird Paddock**' and '**Grantiella**' blocks were donated to BOCA in 1975 and 1980 respectively.





During the 1980's, Gordon purchased several other adjacent hobby-farm blocks to add to the Sanctuary. He donated these extra parcels of land to Trust for Nature and set about creating more bird habitat with a wide range of Australian plants. Many exotic species and weeds were removed and the regeneration of remnant indigenous species is encouraged. An immature pine plantation on one of the blocks will be revegetated with indigenous species after the mature pines have been harvested.

Gordon Clarke died in 1996 at the age of 89 years. He derived much enjoyment and satisfaction from his project and secured its future by the endowment of the Gordon Clarke Trust Fund. His example has been an inspiration to many and he always insisted that the needs of the birds must come first.

### **A showcase of achievements**

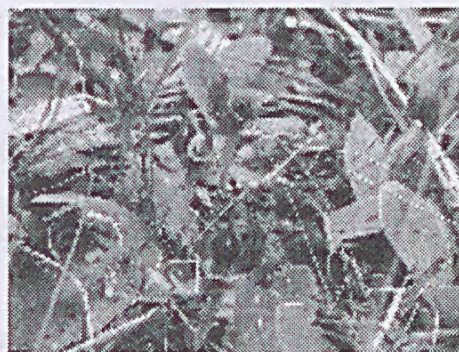
- ◆ Clarkesdale was a finalist in the 2003 Banksia Awards - Category 6 - Protecting Bush, Land and Waterways
- ◆ Clarkesdale pioneered the protection of private land for its conservation value and the provision of financial resources for ongoing maintenance and development.
- ◆ Since its inception 30 years ago, the CBS has been largely self funded thanks to the generosity of Gordon Clarke and the dedicated work of many volunteers.
- ◆ Clarkesdale has been successful in reversing the decline of the 'woodland bird community' listed as a 'threatened community' under the Flora and Fauna Guarantee Act 1988.
- ◆ Clarkesdale has been innovative within the field of conservation in developing a network of partnerships over a thirty-year period.

Clarkesdale has been catering for ecotourism for many years. Members of BOCA, TfN, Field Nats, Landcare groups etc, have visited and sometimes camped at the CBS.

### **Partnerships**

Active participation in many forms has been a conspicuous feature of the evolution of the Clarkesdale Bird Sanctuary since its inception. The partners include:

- The Friends of Clarkesdale
- Bird Observation & Conservation Australia (BOCA) & Ballarat BOCA.
- Gordon Clarke Trust. / Trust for Nature (TfN).
- Woody Yaloak Catchment Project & Corangamite Catchment Management Authority.
- Neighbours and local residents.
- Local and regional CFA and Landcare groups.
- Parks Victoria & Department of Sustainability and the Environment.
- Land for Wildlife network & the Ballarat Environment Network (BEN).
- Australian Conservation Volunteers.
- Greening Australia (Victoria) (GAV).
- Ballarat & other regional Field Naturalist Groups.
- Golden Plains Shire. / The Cybec Foundation.



*Source:* <http://www.boca.org.au/conservation/clarkesdale/>



**FIELD NATURALISTS CLUB OF BALLARAT INCORPORATED**  
**No. A0014919P ABN 13 150 403 135**  
**MINUTES OF THE GENERAL MEETING - 4 JUNE 2010.**

**1. Opening and Apologies**

The President, Elspeth Swan, welcomed 24 members.

Apologies were received from 9 members

*Accepted on the motion of Fran Hanrahan; seconded Paul Norquay.*

**2. Minutes of previous meeting** Tabled and Summarised in Ballarat Naturalist.

*Confirmed on the motion of Peter Dalman, Seconded: Carol Hall.*

**3. Correspondence**

**IN:**

- FNCV: Victorian Naturalist, April 2010, Field Nats News, June 2010.
- Castlemaine FNC: Castlemaine Naturalist, May & June 2010.
- Bendigo FNC: Whirrakee, June / Geelong FNC: Geelong Naturalist, June 2010
- RHSV: Gardeners Gazette, Winter 2010.
- VNPA: Reconnecting the landscape appeal; Central Victoria Small Parks Project launch at Castlemaine, 6.30pm 16 June 2010.
- Latrobe Valley FNC: SEANA camp at Foster North, 15-18 October 2010.
- Chinchilla FNC: ANN Get-together, 24 August – 4 September, still some vacancies.
- Ballarat Environment Network: Membership \$10.
- Regional Achievement and Environment Awards.
- Bendigo Bank: statements.
- SEANA: Receipts; Updated AGM Minutes; Committee Agenda.
- Jennifer Johnson, Roger Thomas: Membership.
- Matt Pywell: Ballarat Wild Plants sponsorship.
- Helen Burgess: Old letters; Club 60<sup>th</sup> anniversary (2012).
- Heaths Folly, Apollo Bay: Accommodation cost will be \$25 per person per night.

**OUT:**

- Margaret Rotheram: Thanks for Barwon Heads books.
- Helen Burgess, Val Hocking: Sympathy cards.
- BEN: Membership.

**4. Business arising from correspondence:** Handled by Committee.

**5. Reports**

- Treasurer's Report: Opening Balance \$4205.21, Income: \$331.50, Expenses: \$22.84, Closing Balance: \$4513.87. Received *L. Hanrahan, / Peter Dalman*.
- Fiery Creek wetland excursion: Flora and fauna lists prepared and sent to Wombat Forestcare. Forwarded to Hancock Plantations. Aim is to revegetate edges of waterway through pine plantation and the streamside reserve through farmland down stream.
- **Bushranger Reserve Piggoreet.** A year after a very hot controlled burn, the area is recovering, however in some patches ground cover is sparse. Tiny Greenhood *Pterostylis parviflora* was abundant but nearly finished flowering and two Sharp-Midge Orchid *Genoplesium despectans* were found. Tall Greenhood *Pterostylis*



*melagramma* with large buds will flower soon. Leaves of Nodding Greenhood, sun orchids and others were common. The only plants found in flower were a blue bell, pink and white heath and Common Correa *Correa reflexa*.

- **Devils Kitchen** Wedge-tailed Eagle soaring far to the south
- **Grams Road** BEN reserve removed several pine wildlings and Sallow Wattle. Beard Heath and Ploughshare Wattle flowering.

#### 6. **General Business**

- FNCB Camp: Apollo Bay, Christian Brothers house, 21-25 June. Final arrangements announced.
- Volunteers to speaker report: John Petheram; excursion report: Fran Hanrahan.
- ICE: As a safety measure, a contact number should be included in the phonebook of your mobile phone under the name of ICE (In Case of Emergency).
- Club accepted invitation from Ian Magee (Bendigo District Environment Council) to lead an excursion to Kooyoorra State Park, Sat 25/Sun 26 September. Details available in August newsletter.
- Supper Roster: Thanks to those who have volunteered to set cups and urn before the meeting and clean up after supper; names will be printed in *Ballarat Naturalist*.

#### 7. **Show and Tell**

- Carol Hall showed images of Ghost Fungi taken in daylight and a 45 minute time exposure taken at night.
- Elspeth Swan: Photographs of Fungi from fungi map website.

#### 8. **Field Reports**

- John Gregurke: At Devils kitchen a “sheep rib cage” was seen on the southern cliffs. Closer inspection of the “rib cage” revealed it was surrounded by flying insects – bees! The “ribs” were 8 vertical sections of honeycomb about 30cm long. It seemed a strange place for bees to build a hive but it was probably a warm spot on the north-facing rock.
- Margaret Thomas: Scarlet Robin bathing in puddle at Brown Hill. Pair of Common Bronzewing along Yarrowee Trail at Black Hill.
- Val Hocking: Bright orange sea horse, 25-30cm long washed up on Shell Harbour beach, NSW.
- Claire Dalman: First Willy Wagtail seen on 10 acre block at Miners Rest.
- Peter Gell: Young Sugar Glider caught by dogs at Ross Creek but was rescued and later released.
- Gavin Cerini: Wedge-tailed Eagle hunting rabbits at Meredith.
- Les Hanrahan: Two Wedge-tailed Eagles sitting on fence posts at Springbank.

#### 9. **Excursion Arrangements:**

Sunday 6 June: Fungi. Leader: Les Hanrahan. Leaving from our BHS boat shed at 9.30am and then to the carpark, Garden of St Erths, 10.15am, Blackwood.

#### 10. **Syllabus Item**

Prof Peter Gell; Understanding Wetland Conditions: Lessons from the past.

#### 11. **Supper**



# CALENDAR 2010

## JULY

- Fri 2 Dr Grant Palmer, Environmental Scientist, University of Ballarat.  
*Ecological Thinning.*
- Sun 4 *Union Jack Reserve, Buninyong.* Dr Fran Hanrahan, Club Member.  
pm only. Starting time 1pm.
- Tue 27 Committee Meeting—

## AUGUST

- Fri 6 Members' Presentations
- Sun 8 *Clunes/Fells Gully* John Gregurke, Club Member
- August 24—September 3 *Australian Naturalist Network, Chinchilla, QLD*

## SEPTEMBER —No Meetings



### SUPPER ROSTER

- |        |                                      |
|--------|--------------------------------------|
| July   | Bill Murphy - another helper wanted! |
| August | Tony Johns—another helper wanted     |

### Committee

- President.....Ms Elspeth Swan  
Vice-President.....Mr Greg Binns  
Secretary .....Mr John Gregurke  
Treasurer .....Mr Les Hanrahan

- Mrs Claire Dalman .....  
Mr Peter Dalman .....  
Dr Frances Hanrahan .....

- Mrs Carol Hall.....  
Mrs Val Hocking .....  
Ms Nina Netherway (editor) .....

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Editor: Nina Netherway,

**Website:** [www.ballarat.yourguide.com.au](http://www.ballarat.yourguide.com.au) Click on *Community>Local Clubs> Environment*

**Meetings** are held at the Prince of Wales Park Clubrooms in Prince of Wales Park, Gillies St on the first Friday of the month at 7.30pm.

**Excursions:** Leave from the carpark adjacent to BGS & BHS boatsheds at the south end of Forest St., Wendouree.

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